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<110> Kolesnick, Richard N.
Xing, Hong-Mei R.

<120> Kinase Suppressor of Ras Inactivation
for Therapy of Ras Mediated Tumorigenesis

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<141> 2003-12-03

<150> 60/384,228

<151> 2002-05-30

<150> 60/460,023

<151> 2003-04-03

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<151> 2003-05-29

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<223> primer

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24

<210> 14

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<212> DNA

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<220>

<223> primer

<400> 14

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<400> 15
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<220>
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<400> 16
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<400> 18
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<210> 19
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<400> 19
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121

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<210> 26
<211> 40
<212> PRT
<213> Homo sapiens

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Leu Glu Ala Lys Leu Val Arg Tyr
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<210> 27
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<213> Homo sapiens

<400> 27

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<210> 28

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> antisense oligonucleotide

<400> 28

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<210> 29

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> antisense oligonucleotide

<400> 29

cagccccgcgc agactgcc

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<210> 30

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> antisense oligonucleotide

<400> 30

gaggtcgtta gacactgc

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<210> 31

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> antisense oligonucleotide

<400> 31

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<210> 32

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<223> antisense oligonucleotide

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<210> 39
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<220>
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<400> 39
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18

<210> 40
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<210> 41
<211> 46
<212> PRT
<213> Homo sapiens

<400> 41
Val Thr His Arg Phe Ser Thr Lys Ser Trp Leu Ser Gln Val Cys His
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Val Cys Gln Lys Ser Met Ile Phe Gly Val Lys Cys Lys His Cys Arg
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Leu Lys Cys His Asn Lys Cys Thr Lys Glu Ala Pro Ala Cys
35 40 45

<210> 42
<211> 67
<212> PRT
<213> Homo sapiens

<400> 42
Asp Ser Ser Ser Asn Pro Ser Ser Thr Thr Ser Ser Thr Pro Ser Ser
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Pro Ala Pro Phe Pro Thr Ser Ser Asn Pro Ser Ser Ala Thr Thr Pro
20 25 30

Pro Asn Pro Ser Pro Gly Gln Arg Asp Ser Arg Phe Asn Phe Pro Ala
 35 40 45
 Ala Tyr Phe Ile His His Arg Gln Gln Phe Ile Phe Pro Asp Ile Ser
 50 55 60
 Ala Phe Ala
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<210> 43
 <211> 272
 <212> PRT
 <213> Homo sapiens

<400> 43
 Gln Thr Ser Val Tyr Leu Gln Glu Trp Asp Ile Pro Phe Glu Gln Val
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 Glu Leu Gly Glu Pro Ile Gly Gln Gly Arg Trp Gly Arg Val His Arg
 20 25 30
 Gly Arg Trp His Gly Glu Val Ala Ile Arg Leu Leu Glu Met Asp Gly
 35 40 45
 His Asn Gln Asp His Leu Lys Leu Phe Lys Lys Glu Val Met Asn Tyr
 50 55 60
 Arg Gln Thr Arg His Glu Asn Val Val Leu Phe Met Gly Ala Cys Met
 65 70 75 80
 Asn Pro Pro His Leu Ala Ile Ile Thr Ser Phe Cys Lys Gly Arg Thr
 85 90 95
 Leu His Ser Phe Val Arg Asp Pro Lys Thr Ser Leu Asp Ile Asn Lys
 100 105 110
 Thr Arg Gln Ile Ala Gln Glu Ile Lys Gly Met Gly Tyr Leu His
 115 120 125
 Ala Lys Gly Ile Val His Lys Asp Leu Lys Ser Lys Asn Val Phe Tyr
 130 135 140
 Asp Asn Gly Lys Val Val Ile Thr Asp Phe Gly Leu Phe Gly Ile Ser
 145 150 155 160
 Gly Val Val Arg Glu Gly Arg Arg Glu Asn Gln Leu Lys Leu Ser His
 165 170 175
 Asp Trp Leu Cys Tyr Leu Ala Pro Glu Ile Val Arg Glu Met Thr Pro
 180 185 190
 Gly Lys Asp Glu Asp Gln Leu Pro Phe Ser Lys Ala Ala Asp Val Tyr
 195 200 205
 Ala Phe Gly Thr Val Trp Tyr Glu Leu Gln Ala Arg Asp Trp Pro Leu
 210 215 220
 Lys Asn Gln Ala Ala Glu Ala Ser Ile Trp Gln Ile Gly Ser Gly Glu
 225 230 235 240
 Gly Met Lys Arg Val Leu Thr Ser Val Ser Leu Gly Lys Glu Val Ser
 245 250 255
 Glu Ile Leu Ser Ala Cys Trp Ala Phe Asp Leu Gln Glu Arg Pro Ser
 260 265 270

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 <211> 13
 <212> PRT
 <213> Mus musculus

<400> 44
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5

10

<210> 45

<211> 46

<212> PRT

<213> Mus musculus

<400> 45

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		20						25					30		
Leu	Lys	Cys	His	Asn	Lys	Cys	Thr	Lys	Glu	Ala	Pro	Ala	Cys		
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<210> 46

<211> 53

<212> PRT

<213> Mus musculus

<400> 46

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		20						25					30		
Pro	Asn	Pro	Ser	Pro	Gly	Gln	Arg	Asp	Ser	Arg	Phe	Ser	Phe	Pro	Asp
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<210> 47

<211> 272

<212> PRT

<213> Mus musculus

<400> 47

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		20						25					30		
Gly	Arg	Trp	His	Gly	Glu	Val	Ala	Ile	Arg	Leu	Leu	Glu	Met	Asp	Gly
		35					40					45			
His	Asn	Gln	Asp	His	Leu	Lys	Leu	Phe	Lys	Lys	Glu	Val	Met	Asn	Tyr
	50					55					60				
Arg	Gln	Thr	Arg	His	Glu	Asn	Val	Val	Leu	Phe	Met	Gly	Ala	Cys	Met
					70				75						80
Asn	Pro	Pro	His	Leu	Ala	Ile	Ile	Thr	Ser	Phe	Cys	Lys	Gly	Arg	Thr
				85					90					95	
Leu	His	Ser	Phe	Val	Arg	Asp	Pro	Lys	Thr	Ser	Leu	Asp	Ile	Asn	Lys
			100					105					110		
Thr	Arg	Gln	Ile	Ala	Gln	Glu	Ile	Ile	Lys	Gly	Met	Gly	Tyr	Leu	His
		115					120					125			
Ala	Lys	Gly	Ile	Val	His	Lys	Asp	Leu	Lys	Ser	Lys	Asn	Val	Phe	Tyr
		130					135					140			

Asp	Asn	Gly	Lys	Val	Val	Ile	Thr	Asp	Phe	Gly	Leu	Phe	Gly	Ile	Ser
145					150					155					160
Gly	Val	Val	Arg	Glu	Glu	Arg	Arg	Glu	Asn	Gln	Leu	Lys	Leu	Ser	His
			165						170					175	
Asp	Trp	Leu	Cys	Tyr	Leu	Ala	Pro	Glu	Ile	Val	Arg	Glu	Met	Ile	Pro
		180						185					190		
Gly	Arg	Asp	Glu	Asp	Gln	Leu	Pro	Phe	Ser	Lys	Ala	Ala	Asp	Val	Tyr
		195					200					205			
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	210					215					220				
Lys	His	Gln	Pro	Ala	Glu	Ala	Leu	Ile	Trp	Gln	Ile	Gly	Ser	Gly	Glu
225					230					235					240
Gly	Val	Arg	Arg	Val	Leu	Ala	Ser	Val	Ser	Leu	Gly	Lys	Glu	Val	Gly
			245						250					255	
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 <213> Homo sapiens

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<210> 49
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<400> 49
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<210> 50
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<210> 56
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<212> DNA
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